



Tom.Perina@CH2M.com
06/27/2005 11:28 AM

To Christopher Lichens/R9/USEPA/US@EPA
cc
bcc
Subject RE: EE/CA options

Chris,

I do not think that the summary needs any technical revisions. It seems to be right to the point and leads to the modified existing alternative 3.

"Dual Phase Extraction" in the third bullet under Proposed Expansion of Alternatives should be changed to "DPE".

Tom

-----Original Message-----

From: Lichens.Christopher@epamail.epa.gov
[mailto:Lichens.Christopher@epamail.epa.gov]
Sent: June 27, 2005 10:50 AM
To: Perina, Tom/RIV
Subject: EE/CA options

Tom,

Please review and comment. I'll be in all day today. Thanks,

Chris

(See attached file: eeca summary and possible alternatives.wpd)

Omega OU-1 EE/CA Summary of Alternatives and Possible Expansion

Existing Alternatives, as described in Draft EE/CA Report

1. Groundwater extraction on the Omega property and discharge of treated water to the storm drain, sanitary sewer, or surface water.
2. Groundwater extraction at Putnam Street with discharge to the storm drain, sanitary sewer, or surface water.
3. Groundwater extraction at Putnam Street with re-injection on the Omega property and enhanced anaerobic biodegradation (EAB).

The preferred alternative would be 3, although EPA will recommend that this alternative be revised to include additional flexibility for discharge of treated water. Re-injection on the property may be limited by soil infiltration capacity, ability to obtain access, and/or possible conflicts with future actions.

Advantages of this structure (i.e., these alternatives):

- No additional data are required to complete the EE/CA.
- RAOs can be met with existing alternatives and existing data.
- The scope of each alternative is clearly within the limits of the Partial CD.

Disadvantages of this alternative structure:

- The opportunity for additional mass removal (through Dual Phase Extraction) on the Omega property would be temporarily missed. However, future RODs for OU-1 and/or OU-2 could include DPE.

Proposed Expansion of Alternatives

1. Alternative 1 as described above.
2. Combination of Alternatives 1 and 2 above.
3. Groundwater extraction at Putnam Street with options for Dual Phase Extraction, re-injection, and above-ground discharge (i.e., storm drain, sanitary sewer, or surface water).

Alternative 3 would be the preferred alternative.

Advantages of this structure:

- Additional mass removal could be achieved through DPE, pending collection and

evaluation of additional data on the Omega property.

Disadvantages of this structure:

- At least 2-3 months would be required to collect and evaluate additional data.
- DPE is potentially beyond the scope of the CD, which specifies that the EE/CA and corresponding actions should be limited to groundwater.
- DPE may not be compatible with future technologies implemented on the Omega property (e.g., excavation).